Name:

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Geometry, Period

Due Date: Mon, 27 Oct 2014

**Geometry**

**Homework**





[Dallas Ebola Patient Dies, WHO Confirms 8,000+ Cases Worldwide, But This Is 13,000 Times More Deadly](http://www.addictinginfo.org/2014/10/09/dallas-ebola-patient-dies-who-confirms-8000-cases-worldwide-but-this-is-13000-times-more-deadly/)

AUTHOR: [FRANK MINERO](http://www.addictinginfo.org/author/frankminero/) OCTOBER 9, 2014 2:45 AM

Thomas Eric Duncan, the Liberian man recently diagnosed with [Ebola in Dallas](http://www.addictinginfo.org/2014/09/30/cdc-confirms-first-case-of-ebola-in-usa-trump-freaks-out-blames-obama-video/), succumbed to the grisly virus on Wednesday. He was 42 years old.

Also on Wednesday, The World Health Organization (WHO) released a [report](http://apps.who.int/iris/bitstream/10665/136020/1/roadmapsitrep_8Oct2014_eng.pdf?ua=1) revealing Ebola cases have surpassed 8,000 in Liberia, Sierra Leone and Guinea. 2,799 new cases have been reported in the last 21 days and a total of 3,857 people have died.

The news of Duncan’s death along with the deaths of 3,857 people in West Africa is tragic. Our hearts go out to those infected and their loved ones as well.

As disturbing as this news is, it provides no clear assessment of the risk we face as American citizens. Are we at risk of contracting and dying from Ebola? That’s the question on everyone’s mind.

We turn to the media to help us assess risk. Most media outlets are doing exactly that. They’re engaging in respectable journalism, reporting the facts, educating and assessing risk. However, a few bad apples are hyping the [fear for ratings](http://www.addictinginfo.org/2014/10/08/fox-host-gretchen-carlson-spews-an-obamaebola-conspiracy-theory-that-would-make-sarah-palin-proud-video/)… and yellow journalism spreads misinformation almost as infectiously as the Ebola virus itself.

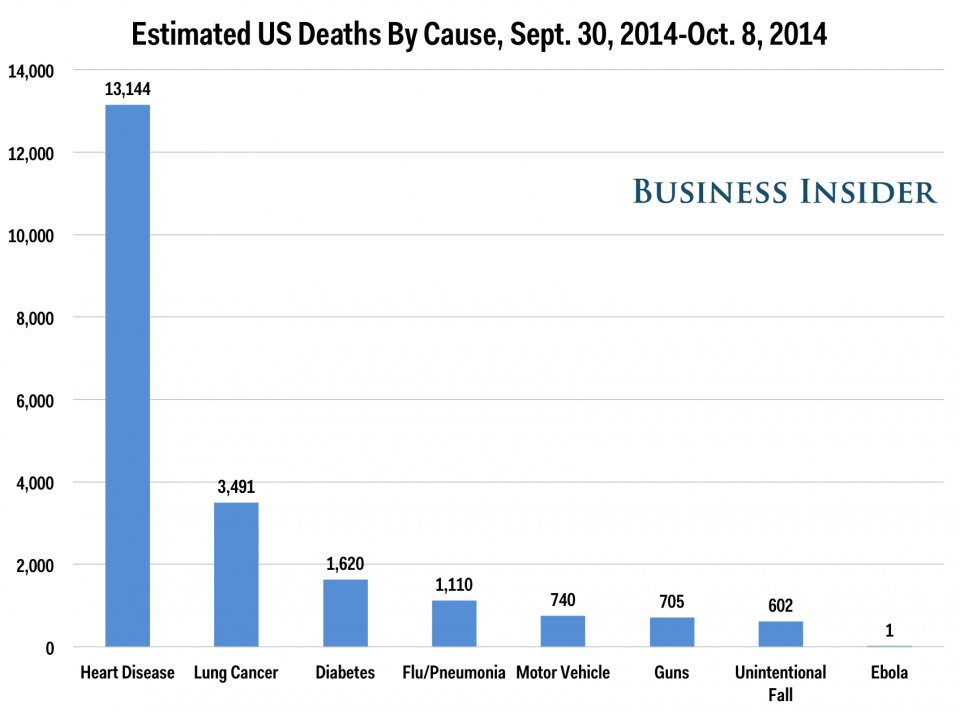
In an effort to combat yellow journalism, we would like to share some information that clearly demonstrates how afraid you should be of dying from Ebola in America.

Duncan’s diagnosis was confirmed by the CDC on Sept. 30th and he died on Oct. 8th. [Business Insider](http://www.businessinsider.com/things-that-have-killed-americans-since-first-us-ebola-patient-2014-10) has estimated the number of deaths from various other causes during the same time period.

According to Business Insider’s calculations, for every time we fear death by Ebola we should fear death by heart disease 13,144 times, lung cancer 3,491 times, diabetes 1,620 times, and the flu 1,110 times.

Even strapping young men and women, full of vim and vigor, have more pressing things to worry about. According to an estimate of actual risk, for every time you fear death by Ebola, you should fear death by car accident 740 times, guns 705 times and an unintentional fall 602 times.

Here’s a simple graph from Business Insider to help drive the point home.

[](http://www.addictinginfo.org/wp-content/uploads/2014/10/ebola-causes-of-death.jpg)

Source: BusinessInsider.com

The next time you’re watching Fox News and they arouse a fear death by Ebola, just remember… the next 602 times you fear death it has to be from an unintentional fall.

**Response Questions**

1. What have you heard about Ebola so far? Is it something that concerns you?

1. How many people have died from Ebola in West Africa? Does this affect how much we should be concerned about it? Why or why not?

1. How does having the mathematical facts about Ebola deaths in the US affect your opinion of Ebola?

1. Can you think of another example when mathematical facts affected your opinion on something? Elaborate.

1. How many more **instances** of diabetes are there than the flu?

1. Diabetes is how many **times** more common than the flu (or by what proportion or percentage)?

1. The graph above was for a period of about 1 week. At this rate, about how many people will die in the US from the Flu/Pneumonia **in one year**? About how many died **every day** during this week? About how many people died from ***Ebola*** in the United States every day over this period?

1. ***Take a sample of 10 people you know*** (no more than 5 can be teens or younger). Ask if they have gotten their flu shot this year! Then write a proportion & fraction expressing the ratio of those who have flu shots to those who don’t. How could you both encourage them to get a flu shot & help them be less stressed about Ebola?

1. Draw a chart where the ***x****-axis* represents the *number of days* and ***y****-axis* represents the *number of Ebola cases*. Plot the Ebola death. 7 days, 1 death = (7, 1). If the Ebola deaths continue at this rate, how many deaths should there be after 3 more weeks. Show on your graph.

1. Liberia, in West Africa, has been hardest hit by Ebola. Their rate is growing at over 20 deaths per day. What slope could represent this (consider the same scale as #9)? Explain. Add this to your chart from #9 & label each line. After 3 weeks, how many more people will have died in Liberia than in the United States.